

Debris Disks in the Submillimeter

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The submillimeter camera SCUBA has revolutionized our understanding of debris disks. I will review the imaging observations made from 1997 to 2004 and summarize the properties of disks, cavities and clumps seen around stars within 20 pc of the Sun. The results are diverse and indicate a wide range of planetary system properties. The submillimeter is particularly sensitive to cold outer regions akin to the Kuiper Belt, and there is evidence for perturbing planets and large cometary populations at 100 AU or more from the parent stars. In particular, sensitivity to cold dust allows us to study Sun-like stars, and I will present images of the debris around τ Ceti, our closest Solar analog, as well as the results of an unbiased survey for debris around nearby G dwarfs. These new results help to place our Solar System in context, as either typical or unusual in planet-forming history.

